

HANDBOOK OF PHONOLOGICAL DATA  
FROM A SAMPLE OF THE WORLD'S LANGUAGES

A Report of the Stanford Phonology Archive

Compiled and edited by

John H. Crothers  
James P. Lorentz  
Donald A. Sherman  
Marilyn M. Vihman

405 Burushaski	405 Burushaski	405 Burushaski
405 01 p	22 d/z-hacek [z-hacek] (free)	52 i-long
405 02 p-aspirated *[f] [p/f] (free)	23 ʃ <sup>30</sup> ʃ <sup>31</sup> ʃ <sup>32</sup> (loan, free) */p-aspirated/	53 e-mid [epsilon] <sup>65</sup> (free)
405 03 b	24 s	54 e-mid-long
405 04 t	25 z	55 a [schwa] <sup>66</sup> [ash] <sup>67</sup> [caret] <sup>68</sup>
405 05 t-aspirated	26 s-hacek-retroflex	56 a-long
405 06 d	27 s-hacek	57 u [upsilon] <sup>64</sup> [u-trema] <sup>07 70</sup> (free, neutral) */i/
405 07 t-retroflex	28 x-uvular <sup>31 32 33 61 62</sup> (loan, free) */q-aspirated/ */h/	58 u-long
405 08 t-retroflex-aspirated	29 gamma-uvular	59 o-mid [o-open] <sup>69</sup> (free)
405 09 d-retroflex <sup>01</sup>	30 m	60 o-mid-long
405 10 k	31 n [n-retroflex] <sup>63</sup>	61 yod
405 11 k-aspirated	32 eng <sup>34</sup>	62 w
405 12 g	33 l	63 a-long-nasalized <sup>05</sup> (limited)
405 13 q	34 r <sup>35</sup>	64 u-long-nasalized <sup>06</sup> (limited)
405 14 q-aspirated *[x-uvular]	35 r-fricative-retroflex <sup>03 04</sup>	
405 15 t/s	36 h <sup>36</sup> *[x-uvular]	
405 16 t/s-aspirated <sup>02</sup>		81 high-falling <sup>37</sup>
405 17 t/s-hacek-retroflex	51 i *[u-trema] [iota] <sup>64</sup>	82 mid <sup>08 37</sup>
405 18 t/s-hacek-retroflex-aspirated <sup>02</sup>		83 low-rising <sup>37</sup>
405 19 d/z-hacek-retroflex [z-hacek-retroflex] (free)		
405 20 t/s-hacek		
405 21 t/s-hacek-aspirated <sup>02</sup>		
405 \$a Burushaski \$b Hunza \$d isolate \$e Hunza, N India \$f 20,000 \$g Merritt Ruhlen \$g Gary Holland (review)		
405 \$a Morgenstierne, Georg \$b 1945 \$c Notes on Burushaski Phonology \$d NTS 13.61-95		
405 \$a STRESS \$A "Stress in most cases has a fixed place in the word.... There is certainly some interdependence between stress and quantity. To some extent the stress may...influence the length of the vowel. But, on the other hand, original length...seems to attract the stress.... To a certain extent stress is, however, determined by morphological factors.... It therefore appears that the place of the stress is to some extent free and not conditioned by quantity." (p.89-90)		
405 \$a SYLLABLE \$A (C)(C)V(C)(C) \$A initial CC: /p, b, t, d/ + /r/; there are few examples of such clusters, those being chiefly "possible onomatopoeitics." (p.71) Clusters with /yod/ as second C occur only as variants of C + /i/. \$A final CC: liquid, nasal, or sibilant + stop or affricate (p.72)		
405 \$a TONE \$A domain of tone: syllable		

- 405 01 \$A /d-retroflex/ may sometimes become a retroflex vibrant. (p.66)
- 405 02 \$A "The aspiration of affricates was less pronounced than that of the stops." (p.63)
- 405 03 \$A /r-fricative-retroflex/ affects initial /q, g, gamma-uvular/, changing them into peculiar sounds, probably of a retracted nature...." (p.69)
- 405 04 \$A "The most characteristic phoneme of Burushaski is the cerebral [r-fricative-retroflex]...which [in another dialect] was heard as something between a French "r grasseyee" and a [gamma]. It occurs only in postvocalic position. To my ear it gave the impression of being a fricative [r], pronounced with the tongue in the retroflex...position.... It tends to disappear, or to change into [w].... Historically it represents an earlier [\*r-retroflex] [derived ultimately from] [d-retroflex] and [t-retroflex]." (p.68)
- 405 05 \$A A nasal vowel, [a-long-nasalized], occurs in one word. (p.84)
- 405 06 \$A A nasal vowel, [u-long-nasalized], occurs in a few onomatopoeic words. (p.84)
- 405 07 \$A Morgenstierne apparently has also used the symbol [i-tremal] for [u-tremal], cf. p.69, 83. No description is given.
- 405 08 \$A The level and contour of the ordinary (i.e. unmarked) tone are not specified. [MRI]
- 405 30 \$A "...initial [f-] is found principally in foreign words, and it seems probable that educated people endeavor to retain [f] in their pronunciation of Arabic and Persian loan words.... [f] can hardly be considered to be a separate phoneme in Burushaski. It occupies more or less a position similar to that of [q] in Pashto, where distinguishing between this sound and [k] appears to be limited to a restricted circle of educated people." (p.64-65)
- 405 31 \$A "The tendency to open /p-aspirated/ and /q-aspirated/ (to fricatives) has been strengthened by the existence of [x-uvular] and [f] in several of the languages from which Burushaski has got its loan words." (p.65)
- 405 32 \$A /f, x-uvular/ do not occur word finally. (p.72)
- 405 33 \$A "[x-uvular]...occurs...without any variant in a number of Arabic and Persian loanwords." (p.65)
- 405 34 \$A /eng/ "does not occur as an initial." (p.66-67)
- 405 35 \$A "Initial [r-] is rare in native Burushaski words." Its articulation is not described. (p.67)
- 405 36 \$A /h/ is "common in initial position. Intervocally it occurs mainly in loanwords.... It is possible that Burushaski final [h] represents merely a desonorization of the last part of the final vowel, corresponding to the desonorization of final consonants." (p.70)
- 405 37 \$A The exact status of tones in Burushaski is not completely clear. [MRI] (cf. p.87-88)
- 405 61 \$A "Even in loan words [x-uvular] alternates with [q-aspirated].... It appears probable therefore that [x-uvular], besides representing a refined pronunciation of the corresponding foreign sound, is a variant of the aspirate [q-aspirated]." (p.65)
- 405 62 \$A "...there is some vacillation between [x-uvular] and [h] before [u].... This [x-uvular] must be taken as a conditioned variant of [h]." (p.65, n)
- 405 63 \$A /n/ is retroflexed "in the proximity of a primary cerebral [i.e. retroflex MRI] consonant." (p.67)
- 405 64 \$A /i, u/ are realized as [iota, upsilon] when unstressed. (p.83)
- 405 65 \$A "There is no certain example of the opposition [e:epsilon] being phonologically relevant, and the two sounds may be considered as variants." (p.83)
- 405 66 \$A /a/ is realized as [schwa] "before /r/." (p.83)
- 405 67 \$A /a/ is realized as [ash] "in the neighborhood of palatals." (p.83)
- 405 68 \$A /a/ is realized as [caret] when unstressed?. (cf. p.83-84) ("No minimal pairs are distinguished by the opposition [a:caret]. These sounds are frequently interchangeable, and Lorimer, with his British ear, heard more caret's than I did, while Zarubin does not distinguish between them at all." (p.83) It may be the case that [caret] and [schwa] represent the same sound, interpreted differently by different linguists. [MRI] (cf. 83-84)
- 405 69 \$A "[o-open] is an occasional variant of /o-mid/." (p.83)
- 405 70 \$A [u-tremal] occurs "occasionally" as a conditioned free variant of both /u/ and /i/ between

/q/, /s/, /gamma-uvular/, and /r-fricative-retroflex/. (p.83, 69)